AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

1-47. (Cancelled)

48. (New) In an electronic device interfaced with a display surface, a method, comprising the steps of:

providing two block diagram models, said block diagram models having blocks representing components of a system;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models;

categorizing said differences between said two block diagram models as functional differences and graphical differences, said functional differences controlling the performance of a system represented by said block diagram model, said graphical differences affecting the appearance of said block diagram model displayed to a user;

copying all of said functional differences from said selected one of said two block diagram models;

copying less than all of said graphical differences from said selected one of said two block diagram models;

inserting the copied functional differences and graphical differences into said other block diagram model; and

displaying at least a portion of the other block diagram model on the display surface.

49. (New) The method of claim 48, comprising the further steps of:

cascading hierarchically the replacement of data elements in said other block diagram model wherein said data elements being replaced are arranged in a tree structure, said tree structure having parent data elements with child data elements attached thereto, said child data elements in said other block diagram model being replaced when said parent data element is replaced.

50. (New) The method of claim 48, comprising the further steps of:

cascading hierarchically the replacement of data elements in said other block diagram model, wherein said data elements being replaced are arranged in a tree structure, said tree structure having parent data elements with child data elements attached thereto, said child data elements of corresponding parent data elements being replaced without replacing the corresponding parent data element.

51. (New) In an electronic device interfaced with a display surface, a method, comprising the steps of:

providing two block diagram models, said block diagram models having blocks representing components of a system;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models;

programmatically merging differences copied from a selected one of said two block diagram models into the other of said block diagram models at a corresponding location in said other block diagram model;

determining a distance on said display surface from an endpoint of a line to an updated connection point for a block in said other block diagram model, said updated connection point being the connection point of ~~a~~ said line and said block following a merge operation;

comparing said distance to a pre-defined parameter, said pre-defined parameter being a distance value;

extending said line to said updated connection point when said distance is less than said pre-defined parameter; and

displaying said line on the display surface.

52. (New) The method of claim 51, comprising the further step of:

replacing said line with a new line drawn to said updated connection point when said distance is at least as large as said pre-defined parameter.

53. (New) In an electronic device, a method, comprising the steps of:

providing two state diagrams of a system, said state diagrams having blocks joined with

lines, each of said blocks representing states in a system, said lines representing transitions between said states, said transitions taking place upon the occurrence of a specified event;

determining corresponding features of said state diagrams that are present in both of said state diagrams;

determining differences between said state diagrams, wherein the determining of differences includes categorizing said corresponding features as functional features and graphical features, said functional features controlling the performance of the system represented by said state diagram, said graphical features affecting the appearance of said state diagram displayed to a user, and determining differences in said functional features and said graphical features of said state diagrams;

enabling a user to select some of said differences;

merging the differences selected by the user from a selected one of said state diagrams into the other of said state diagrams, said merging step including the step of copying said selected differences from the selected one of said state diagrams and inserting said selected differences in said other state diagram, wherein the step of copying includes copying all of said differences in functional features from said selected one of said state diagrams and copying less than all of said differences in graphical features from said selected one of said state diagrams;

inserting the copied functional feature differences and graphical feature differences into of said other state diagram; and

displaying at least a portion of the other state diagram on the display.

54. (New) In a network that includes an electronic device, said electronic device interfaced with a display surface, a method, comprising the steps of:

retrieving over said network two block diagram models, said block diagram models having blocks joined with lines and including at least one semantic connection, said semantic connection associating components within the same system in said block diagram model without a direct connection in said diagram between the components, each of said blocks including connection points where said lines join said blocks;

displaying said block diagram models to a user on said display surface;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models, said differences being

recorded as a list of data elements, wherein said determining of differences includes categorizing said differences between said block diagram models as functional differences and graphical differences, said functional differences controlling the performance of the system represented by said block diagram model, said graphical differences affecting the appearance of said block diagram displayed to a user;

enabling a user to select some of said differences;

merging the differences selected by the user from a selected one of said block diagram models into the other of said block diagram models, said merging step including the step of copying said selected differences from the selected one of said block diagram models and inserting said selected differences in the other of said block diagram models, wherein the step of copying includes copying all of said functional differences from selected one of said two block diagram models and copying less than all of said graphical differences from said other block diagram model;

inserting the copied functional differences and graphical differences into said other block diagram model; and

displaying at least a portion of the other block diagram model on the display surface.

55. (New) In an electronic device interfaced with a display surface, a medium holding computer-executable instructions for a method, said method comprising the steps of:

providing two block diagram models, said block diagram models having blocks representing components of a system, said blocks connected by lines;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models, wherein the determining of differences includes categorizing said differences between said two block diagram models as functional differences and graphical differences, said functional differences controlling the performance of a system represented by said block diagram model, said graphical differences affecting the appearance of said block diagram model displayed to a user;

enabling a user to select some of said differences;

programmatically merging the differences selected by the user by copying said selected differences from a selected one of said two block diagram models into the other of said block diagram models at a corresponding location in said other block diagram model, wherein the step

of copying includes copying all of said functional differences from said selected one of said two block diagram models and copying less than all of said graphical differences from said selected one of said two block diagram models;

inserting the copied functional differences and graphical differences into said other block diagram model; and

displaying at least a portion of the other block diagram model on the display surface.